

IN THE CLAIMS:

Please cancel Claims 2, 8 to 11 and 13 to 17 without prejudice or disclaimer of subject matter. Please amend Claims 1, 3 to 5, 7 and 12 as follows. The claims, as pending in the subject application read as follows:

1. (Currently Amended) An irradiation field extracting method of extracting an irradiation field from a radiation image, comprising ~~the steps of:~~
~~extracting a characteristic point in the radiation image by using a geometric pattern for detecting an irradiation field edge; and~~
~~detecting an edge portion of said irradiation field on the basis of said characteristic points~~
a pattern selecting step for obtaining, in pixel groups in the radiation image, a pattern for each pixel, the pattern being determined by pixel values of a plurality of pixels selected based on coordinates of the pixels;
a pixel scoring step, assigning a score to each pixel based on the pattern;
a line segment scoring step for assigning, in line segment groups in the radiation image, the summation of the scores of the pixels existing on a line segment as a score to the line segment; and
a line segment selecting step for selecting a line segment as an irradiation field edge based on the score of the line segment in the line segment group.
2. (Cancelled)

3. (Currently Amended) A method according to claim 1, wherein ~~in the extraction of said characteristic point, a relation between pixel value of a target pixel and peripheral pixel of said target pixel is compared with said geometric patterns and an irradiation field edge likelihood is scored~~ only pixels having scores within a predetermined score range are used for the calculation of the summation in the line segment scoring step.

4. (Currently Amended) A method according to claim 1, wherein in the detection of the edge portion of said irradiation field, a line having a possibility that ~~they correspond~~ it corresponds to said irradiation field edge is extracted on the basis of said ~~extracted characteristic point~~ score-assigned pixels.

5. (Currently Amended) A method according to claim 4, wherein in the detection of the edge portion of said irradiation field, it is determined whether or not said extracted line ~~correspond~~ corresponds to said irradiation field edge ~~or not is determined~~.

6. (Original) A method according to claim 1, wherein an image processing condition for said radiation image is set by using data in said detected irradiation field.

7. (Currently Amended) An irradiation field extracting apparatus comprising:

~~geometric pattern extracting means for extracting a geometric pattern in a radiation image; and~~

~~irradiation field discriminating means for determining an irradiation field on the basis of the geometric pattern extracted by said geometric pattern extracting means~~

pattern selecting means for obtaining, in pixel groups in the radiation image, a pattern for each pixel, the pattern being determined by pixel values of a plurality of pixels selected based on coordinates of the pixels;

pixel scoring means for assigning a score to each pixel based on the pattern;

line segment scoring means for assigning, in line segment groups in the radiation image, the summation of the scores of the pixels existing on a line segment as a score to the line segment; and

line segment selecting means for selecting a line segment as an irradiation field edge based on the score of the line segment in the line segment group.

8 to 11. (Cancelled)

12. (Currently Amended) A recording medium which records a computer-readable program, wherein said program is used for executing an irradiation field extracting method of extracting an irradiation field from a radiation image, ~~and said program comprises the steps of comprising:~~

~~extracting a characteristic point in said radiation image by using a geometric pattern for detecting an irradiation field edge; and~~

~~detecting an edge portion of said irradiation field on the basis of said characteristic point~~

a pattern selecting step for obtaining, in pixel groups in the radiation image, a pattern for each pixel, the pattern being determined by pixel values of a plurality of pixels selected based on coordinates of the pixels;

a pixel scoring step for assigning a score to each pixel based on the pattern;

a line segment scoring step for assigning, in line segment groups in the radiation image, the summation of the scores of the pixels existing on a line segment as a score to the line segment; and

a line segment selecting step for selecting a line segment as an irradiation field edge based on the score of the line segment in the line segment group.

13 to 17. (Cancelled)